

Applicant: Antti Heikkinen et al.
App. No.: 10/694,291

Remarks

Claims 1–8 remain pending in the application. This application is a continuation of App. No. 10/089,427. The claims 1–5 and 6 in the present application correspond to rejected claims 24–28 and 33. These remarks are presented for the consideration of the examiner.

The claims have been amended with the filing of the continuation application to address the 112 rejections of former claims 26–28 (now 3–5) by positively reciting structure.

New claims 7–8 are based on the specification:

[0008] Multi-roll on-line, off-line calendering is calendering in a calender unit in which the number of rolls is higher than in soft calenders, most commonly 6-16. Multi-roll calenders are soft-nip calenders. The resilient-surface roll conforms to the contours of the surface of paper and presses the opposite side of paper evenly against the smooth-surface press roll. Linear load increases in the multi-roll calender from the top nip to the bottom nip because of the force of gravity. By using the relieving of rolls, this increase in load can be compensated for. This kind of relieving of the rolls is provided in Metso Paper, Inc.'s OptiLoad™ calender. Multi-roll on-line, off-line calendering is a calendering method, allowing grades from WFS up to uncoated fine paper to be produced.

With respect to the 103 rejection of claims 1 and 6, the examiner in the parent application argued that *Mohan* teaches a pre-moistening means (30a, 30b) in addition to an intermediate moistening means (18a, 18b). However, the entire teaching of *Mohan* must be considered. *Mohan* teaches at column 4, lines 1–7:

As described in greater detail hereinafter, because the machine calendering line shown in FIG. 2B is retrofitted with moisturizing showers in accordance with the present invention, the waterboxes 30 are not used to apply moisture to the paper web, i.e., the waterboxes are either removed or left in place but not activated to apply liquid to the paper web. Becomes *Mohan* teaches turning off or removing the pre-moisturizing means, *Mohan*

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cannot provide the motivation for combining pre-moistening, with the intermediate moistening with a multi-roll calender of *Kayser et al.* A structure which is present and unused may possibly anticipate a structural claim, however when references are combined, a motivation and expectation of success must be present, and each reference must be considered as a whole. Pre-moistening before calendering is known (e.g. *Winheim et al.*), *Mohan* teaches intermediate moistening between two machine calenders (i.e. calenders without resilient rolls) but teaches away from pre-moistening. *Kayser et al.* teaches the use of two calender stacks including heatable hard rollers and resilient rolls but does not teach pre-moistening or intermediate moistening. The examiner has not made a prima facie case because a motivation and expectation of success for doing what the applicant has done has not been shown. Furthermore, with respect to claims 1 and 6, the reversing or guiding members 5 in combination with rigid-shell press rolls and resilient shell backing rolls allow a type of thermal gradient calendering using a combination of hard and resilient rolls which increases web smoothness without substantially compressing the web as a whole. Reversing or guiding members are not present in *Mohan* but are present in *Kayser et al.* within the meaning of the claim.

Claims 2–5 add specific limitations which in combination with claim 1 further distinguish over the art of record.

Claim 6 has been amended to provide support for claim 7.

Claims 7–8 relate to an Optiload type of multi-roll calender, in which the load of the roll stack can be regulated such that each nip has the same load or even so that there is a lower load in the bottom nip than in the upper nips. This is contrary to the teaching of *Mohan* col. 4, lines 38–45, wherein the pressure in each nip is a function of the weight of the calender rolls above the nip.

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It is respectfully submitted the claims in this continuation application are in condition for allowance, and favorable action thereon is respectfully requested.

Respectfully submitted,



Patrick J. G. Stiennon, Reg. No. 34934
Attorney for Applicant
P.O. Box 1667
Madison, Wisconsin 53701-1667
(608) 250-4870
Amdt1.app